

What is claimed is:

1. An electroacoustic capsule or electroacoustic transducer for an electroacoustic device, comprising electrostrictive or magnetostrictive elements configured to be connected to a controllable power supply, wherein dimensional changes of the electrostrictive or magnetostrictive elements cause changes of the inner geometry of the electroacoustic capsule or electroacoustic transducer.

2. The electroacoustic transducer according to claim 1, wherein the electrostrictive elements are piezoelectric elements.

3. The electroacoustic transducer according to claim 1, operating electrostatically and comprising a diaphragm and an electrode, wherein the electrode is the electrostrictive or magnetostrictive element.

4. The electroacoustic transducer according to claim 1, operating electrostatically and comprising an electrode and a diaphragm with an annular spacer securing the

diaphragm and the electrode at a spacing from one another, wherein the annular spacer is the electrostrictive or magnetostrictive element.

5. The electroacoustic transducer or electroacoustic capsule according to claim 1, operating electrostatically and functioning as a microphone, further comprising a control loop configured to determine a voltage supplied to the electrostrictive or magnetostrictive element to compensate manufacturing tolerances and temperature effects having a negative effect on the spacing between the electrode and the diaphragm, wherein the electroacoustic transducer or electroacoustic capsule has a capacitance providing a parameter for the control loop for determining the voltage supplied to the electrostrictive or magnetostrictive element.

6. The electroacoustic transducer or electroacoustic capsule according to claim 1, operating electrostatically and functioning as a microphone, comprising a sound receiver arranged between a main source of sound and the microphone and determining a sound level, wherein values of the sound level measured by the sound receiver are employed for

controlling a voltage supplied to the electrostrictive or magnetostrictive element.

7. The electroacoustic transducer or electroacoustic capsule according to claim 1, having at least one sound inlet comprising an electroacoustic friction pill arranged in the area of the sound inlet, wherein the friction pill is comprised of two plates of electrostrictive or magnetostrictive material having edges, wherein on the edges of the plates small openings are provided, wherein the plates are metal-coated on their top and bottom sides and have an electrical contact, wherein the plates are electrically connected in series.

8. The electroacoustic transducer according to claim 7, wherein the electrostrictive elements are piezoelectric elements.

9. The electroacoustic transducer or electroacoustic capsule according to claim 1, comprising a sound passage, wherein the electrostrictive or magnetostrictive elements release or cover the sound passage as a function of the

dimensional changes of the electrostrictive or magnetostrictive elements.

10. The electroacoustic transducer or electroacoustic capsule according to claim 1, comprising a first hollow space and a second hollow space, wherein the electrostrictive or magnetostrictive elements connect or separate the first and second hollow spaces as a function of the dimensional changes of the electrostrictive or magnetostrictive elements.

11. The electroacoustic transducer or electroacoustic capsule according to claim 1, comprising a component with a channel, wherein the electrostrictive or magnetostrictive elements release or cover the channel of the component as a function of the dimensional changes of the electrostrictive or magnetostrictive elements.